PlayAnyWay

Background Research

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INTRODUCTION

Based on our concept we set our focus on mobile applications which are used to make music. We found out that most apps can be assigned in two main categories, instruments and beat machines.

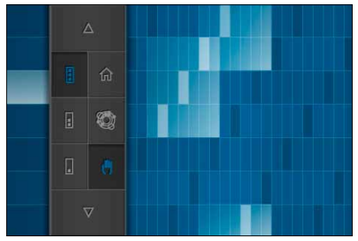
- Instrument apps work basically like a classic instrument. You can make music by combining single tones in a rhythmic order.
- Beat machine apps are used tho create and refine a beat.
- In the third category “Other” we collected innovative tools and software related to our project.

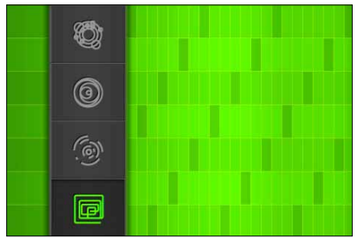
In this qualitative research we analyze 13 existing products by a series of criteria to gain important knowledge related to our project.

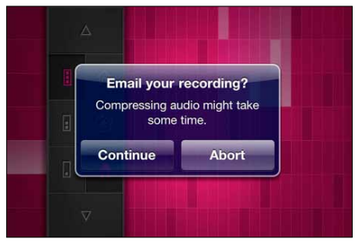
CRITERIA	**DESCRIPTION**
Overview	A short description of the project.
Interaction	What interaction and gestures are used?
Visuals	What influences do the visuals have? What kind of visual feedback is used?
Sound	Does it work with real or synthetic sounds? Are they adjustable? To what kind of music genre do the sounds match?
Accessibility	How well it is accessible (1-3 experts, 3-6 advanced users, 6-10 beginners)
Engaging over time	How well it is engaging over time? (0-10)
Participating	How well it suits to participate to other music? (0-10)
Composing	How well it suits to compose and refine the sound? (0-10)
Pros	What are the most positive aspects?
Cons	What are the most negative aspects?
User feedback	What feedback did other users gave?
References	References and related links for more information.

INSTRUMENTS

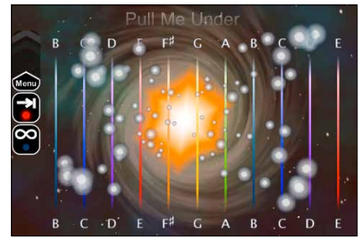
CRITERIA	SOUNDPRISM
Overview	Perform live music on a harmonic tone grid.
Interaction	Play one, two or three tones with one touch. Most success with trying simple patterns and move it around
Visuals	Grid based on the pitch in different colors. Highlights when touching.
Sound	Four instruments but they doesn't work well to play along other music. No possibility to manipulate the sound.
Accessibility	6/10. It is very easy for a beginner because you can't do anything wrong while playing tones. But at the same time it is hard for musical beginners to be creative on the very abstract tone-grid.
Engaging over time	4/10 Just if you are very into music otherwise it gets boring fast.
Participating	3/10 The app on the iPhone mutes the music in the background so it is impossible to jam along on your headphones. In addition the few instruments aren't very compatible to usual Pop or Rock music.
Composing	4/10 For beginners, composing complex music based on more than three tones is very hard. But after a lot of practice, and for experts, it can be a valuable addition to the overall package.
Pros	• Easy to play harmonic notes • Very nice visuals • Visual feedback while playing • Easy possibility to record a session and send it with e-mail
Cons	• No sound manipulation • Just four instruments • Gets boring fast
User feedback	Total 138 Ratings ***+ Tuneproll: Na ja... ** Mangels Sequencer ist bei diesem App. nicht wirklich viel zu holen... Julian Vogels: Sehr gelungene Spielerei ***** Die SoundPrism App hält, was sie verspricht: Musik machen ohne Vorkenntnisse. Sie ist toll designt, man versteht schnell, wofür welche Buttons stehen (und ansonsten gibts auch gute Video-Tutorials auf audanika.com). Es macht wirklich Spass sich Melodien zu überlegen. Auch dass es die Basstasten gibt ist super. Ich hätte mir noch ein paar mehr Sounds gewünscht, und in Zukunft, für die Weiterentwicklung der App auch Effekte wie einen Low-Cut-Filter, einen Flanger oder Phaser oder ähnliches. Dann könnte man die App sogar als Gimmick für das DJing einsetzen.
References	App Store http://itunes.apple.com/us/app/soundprism/id386833491 SoundPrism & Other Tools http://www.youtube.com/watch?v=MS7QI6-uDXY





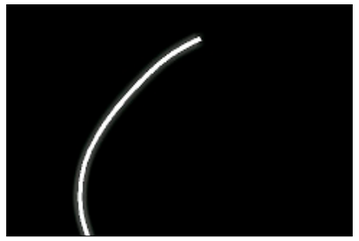


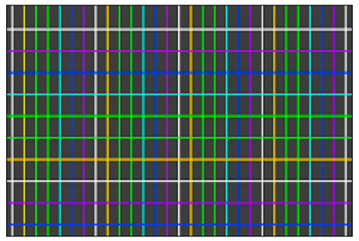
CRITERIA	MORPHWIZ
Overview	MorphWiz is a alternative instrument based on a keyboard. It let you adjust all kind of sound and visual settings.
Interaction	Tap and slide on the keyboard to make sounds. Horizontal line to change to tone. Vertical line to adjust the sound.
Visuals	Same tones in different octaves have always the same colours. Three ways to display the touchpoint: ring, particle and fire.
Sound	Sounds are very ethereal and alternative. Many presets, about 50!
Accessibility	6/10 Beginners can make very easily sound with the instruments, but the settings menu is far to complex. For experts very interesting because it has a lot customization possiblities.
Engaging over time	7/10 It has a lot of potential when you once get used to it.
Participating	7/10 It has a few presets which suits surprisingly well to Music from Santana and Seeed.
Composing	4/10 The possibility to choose a key tone and almost every existing and even a custom tone scale, gives a big value, if you like to compose or just play on a specific base.
Pros	• Very flexible • Many presets • Choosing between many tone scales (major, minor, Ionian, dorian, etc.) on every ground tone • Recording function
Cons	• Bad visual feedback while playing • The sounds are in general only faintly compatible with regular music. • Settings are too complex for beginners
User feedback	Total 63 Bewertungen **** der fisch: much fun to play! ***** very great app. one of the best I have. it makes much fun to play with it. you can modify the scales, and you have the possibiliy to use different vibratos per tone, if you can play that ;-) one idea for an update: user editable graphics Basz T: Fauler Zauber ** Wenn das eine FreeApp wär, könnt ich schreiben «gar nicht schlecht» - im Preissegment weit über 5 erwarte ich allerdings mehr als ein Spielzeug. Nett: Die meisten gewünschten Parameter sind editierbar; bekloppt: Man muss, um an diese ranzukommen, erst durch mehrere Untermenüs, da wünsch ich mir doch musikalisch intuitiveren Zugriff. Noch blöder: Latenz von weit über 50 ms (auf dem 3g sogar über 100)! Musikalisch ist anders, rhythmisches Spielen Utopie, die Engine längst nicht geräteoptimiert.
References	Official Site http://www.morphwiz.com/ AppStore http://itunes.apple.com/de/app/morphwiz/id377345348?mt=8 MorphWiz and SoundPrism Jam: http://www.youtube.com/watch?v=_gIjG36wy_M&NR=1



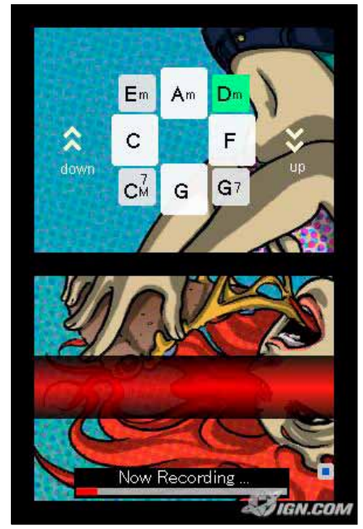
INSTRUMENTS

CRITERIA	ETHEREAL DIALPAD (ANDROID)
Overview	Slide over screen to create ethereal sounds while background flashes in different colors according to the finger position.
Interaction	Slide single or multiple fingers over screen to create a sound No gestures implemented
Visuals	Background flashes in different colors depending on finger positions Toggle grid visible or invisible
Sound	Ethereal sounds; never harsh, always smooth Very limited range of different sounds
Accessibility	10/10 This app requires no special skills, simply touch the screen and slide your fingers around
Engaging over time	2/10 Short due to limited range of sounds and interaction; Pick up every now and then
Participating	2/10. Possible to play with others, but very limited range of expression
Composing	0/10 Everything is done on-the-fly
Pros	• Easy to play harmonic sounds • Visual feedback of finger position
Cons	• Very basic visuals • Gets boring fast • Sound set is very limited
User feedback	will: Really a neat pocket app to create music truly anywhere. If your an ambient music lover, this is for u. ***** Billy: I wish there were instrumental sounds. ****
References	Android Market http://www.android-hk.com/applications/ethereal-dialpad-synthesizer/ Feedback: http://www.appbrain.com/app/ethereal-dialpad-%28synthesizer%29/as.adamsmith.etherealdialpad





CRITERIA	JAM SESSION
Overview	Jam Session lets you play a virtual Guitar on the Nintendo DS.
Interaction	Strike the single string to play a tone, whilst simultaneously holding down the D-Pad in 1 of 8 directions. By holding the shoulder button you can access a second set of chords.
Visuals	The visuals are very stripped down. A simple cord, plus an exchangable background image. No BG animations whatsoever. The cord can be toggled to vibrate when struck, plus the cord color is also adjustable.
Sound	The sound of the chord is clear and comes a fairly close to what a classic guitar sounds like. There many effects options to tweak the chord sound, including delay, flanger, tremolo and distortion. Moreover, you can create your own chord palette.
Accessibility	5/10. The controls require some time to get used. Especially the simultaneous pressing of the D-Pad and the striking of the chord. Can be played by left- or right-handed people. You can also toggle a metronom at anytime.
Engaging over time	6/10. Once the controls are mastered, playing can be real fun, especially when performing live in front of other people or together with others, classic instrument players as well as Jam Session players. Being able to record your own songs is also a plus. Additionally, you can sing along or use the microphone on the DS to pipe your vocals through the system itself, but you can't record vocals onto the system; only the notes you play.
Participating	8/10. Once the controls are mastered Jam Session offers advanced players a great way
Composing	5/10. No option to edit recorded songs. Simple playback, not even an option to fast-forward.
Pros	• Fairly authentic sound • Allows to customize the chord sound in many ways • Great tool when on the way • Record your own songs
Cons	• Requires some time to get used to D-Pad controls • Very basic visuals • Own songs impossible to download or share • No visual record / history of played notes
User feedback	GT users i have this game…its cool to play with but extremely hard to learn to play!!! From the interview: Josh Grubb from the band "Vietnam". His Live concert experience using JS as his guitar. It's nice to have something right there, put my headphones on and start experimenting It sounded great through the amp. The strumming part was not too different. It's pocket-size and ready at all times. It's definitely convenient when you don't have space for a whole guitar
References	Gametrailers: Comments + Interview with Josh Grubb www.gametrailers.com/video/concert-video-jam-sessions/20908 Screenshots http://media.ds.ign.com/media/892/892095/imgs_1.html



Category conclusion

Accessibility

One of the major improvements from instrument apps as opposed to traditional instruments, is that playable tones can be limited to those of a harmonic scale, e.g. in SoundPrism and MorphWiz. This is particularly interesting for beginners. The aforementioned apps, incl. Jam Session, allow for further customization for more advanced players.

This principle applies for SoundPrism, MorphWiz and Ethereal Dialpad. The grid system in combination the basic interaction of simply sliding your finger over this grid matrix enables beginners to create harmonic sounds instantly.

Jam Session uses an abstract interface of a traditional guitar. The chords are hereby mapped to Nintendo DS' D-Pad, thus alleviating lower-intermediate player the access to the experience one has playing a real guitar.

Concerning accessibility, the key principle of all reviewed applications in this field is a simplified interface and interaction model.

Engaging over time

Immediate auditive feedback when playing is rewarding and encourages players to further experiment. Apps like the Ethereal Dialpad or SoundPrism offer an intuitive interaction model.

The less coordination is needed, e.g. multiple simultaneous inputs or fine motor skills, the more likely it is that somebody who's inexperienced will continue.

We've also noticed, apps with sounds that have a less distinct synthetic timbre are more likely to be accepted by a broader audience.

Many user comments suggest that many apps provide a too limited range of different sounds, thus restricting one's musical expression.

Participating

When one is to participate or jam with other people, an instrument needs to provide a range of sounds, that blend in with other instruments as well, whether they are digital or traditional instruments, in order to create a harmonic vibe. As mentioned before, we noticed that many of the pre-defined sounds and effects are too artificial to blend in with other instruments.

Furthermore, it is vital to be able to quickly adapt to what the others are playing, without having to click through a myriad of menus. Jam Session is suited very well for this purpose due to its clear interaction concept.

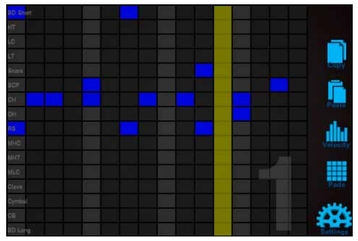
Composing

For a beginner using an instrument app, composing is not likely to be a priority. The pleasure comes from creating a melodic tune by experimenting, rather than having to focus on any technical elements, such as chord progressions, key and time signature etc.

Except for the Ethereal Dialpad, all other instrument apps enable you to record a tune. All tested apps however, offer only very limited replay functions, that enable you to review your recorded tracks. Jam Session shows on the upper screen of the DS exactly which chords were pressed, in real-time. This is an interesting feature, especially for intermediate players. The player however, does not get a chronological overview, e.g. in form of a note chart.

BEAT MACHINES

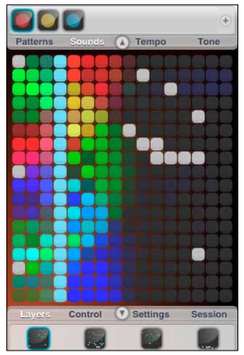
CRITERIA	EASY BEATS LE
Overview	Easy Beats has basic elements of an MPC which are usually used to create electronic drum beats in professional music production.
Interaction	Taping on the 4x4 Pads to create 16 different drum sounds. You can record up to 4 bars with each 16 time steps. Best when looping a bar and refine a beat until it sounds good.
Visuals	Highlights pads in blue when touching. The recorded pattern is also highlighted. Second view shows all tracks and time steps.
Sound	The drum sounds are basic but functional. There is no possibility to adjust them.
Accessibility	7/10 It is very easy for beginners to play around and make nice beats after a few minutes.
Engaging over time	5/10 The MPC elements let you create many different beats, doesn't matter if you are beginner or expert. The free version has some constraints, for example you can not save your favourite beats.
Participating	5/10 Because of the fixed beat speed it is only possible to participate when you turn the recording function off. You can add to your music another drum beat, but it is hard to keep a rhythm over a long time.
Composing	8/10 With the possibility to refine the beat you can compose complex and very interesting results.
Pros	• Good but little too long tutorial video • Good highlighting
Cons	• Just very basic sounds • No sound manipulation
User feedback	Total 10331 Ratings ****+ Bluestonestudio: Beats ***** This app is awesome, and easy to use well put together, I›ve used the $2000 mpc and this isn›t far off! Beef Str˙kker: Awesome app! ***** Great for recording and composing basic beat ideas. It can even be used in your car with an aux input. I›m a drummer and I love it!
References	Official Site http://www.hopefullyuseful.com/

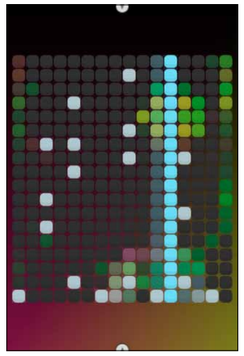


CRITERIA	RD3
Overview	It combines a drum machine with different drum kits and a 303-style synthesizer.
Interaction	Multitouch control over all parameters
Visuals	Decent overview of all components. Yellow color is used to distinguish the active elements from the inactive ones in gray.
Sound	High quality digital sounds. Many options to change dozens of parameters know from similar drum machines. Creation and playback (single, sequential, random) of four different baseline and beat patterns.
Accessibility	7/10 Fairly easy to understand, for beginner as well as experts. All available elements are visible, no scrolling is required on any of screen.
Engaging over time	7/10 RD3 offers an accessible interface and a high range of possible sound combinations. The beat grid support makes it easy for beginners to create a melodic beat.
Participating	4/10 In principle it's possible to work together on a song, for this however, an Android device with a larger screen is recommended, e.g. Galaxy Tab. One can also export/import a song.
Composing	7/10 Composing is easy and fun due to RD3's good visual and auditive feedback.
Pro	• High quality sounds • Export created song • Cut/Copy/Paste a pattern • All elements are visible
Contra	• No option to import custom sounds/effects • No sound feedback without letting the loop run
User feedback	Mark: Androids not for making music yet, but this is pretty cool. **** Kevin: Played with it for 5 minutes, going to buy the pro version right now! **** Pascal: Tons of possibilities,easy to understand works on Galaxy Pad. ****
References	Reviews http://www.appbrain.com/app/rd3-demo-groovebox/com.mikrosonic. RD3Demo https://market.android.com/details?id=com.mikrosonic.RD3 Background http://en.wikipedia.org/wiki/Roland_TB-303

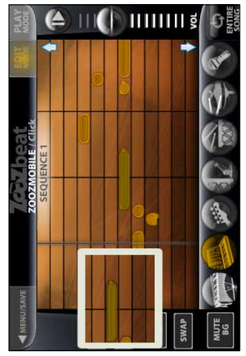
BEAT MACHINES

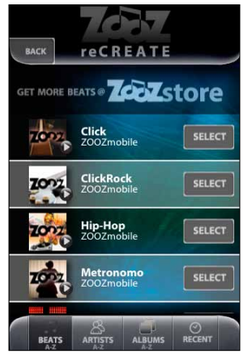
CRITERIA	BEATWAVE
Overview	Beatwave follows the monome and the basic step sequencer principle. You have a grid with 16x18 which is always looped. By tapping a field, it makes a sound when the timeline passes by.
Interaction	You can tap and slide on the grid to active tones on the specific place.
Visuals	Selected positions are highlighted. When the timeline passes on them by colorful waves are emitting.
Sound	Drum sounds are placed at the bottom, melodics in the middle and higher part. The sounds offers a bright variety. Up to four simultaneous grid layers can be used.
Accessability	10/10 With Beatwave everybody can draw something and get a nice audio and visual feedback. For intermediate users it offers also many settings to adjust.
Engaging over time	6/10 The fundamental concept and the settings of tone, sound, tempo and mixing gives enough range to explore for many hours.
Participating	1/10 Participating is due the constant tempo barely possible.
Composing	8/10 You can spend a lot of time composing a very nice and harmonic rhythm but the limited length of 16 steps is very restricting.
Pros	• Due the basic principle very accessible • Nice and suitable visuals • Many settings
Cons	• No possibility to play tones without the hole timeline • Very small fields on the iPhone and iPod
User feedback	Total 11693 Ratings ***+ Patton303: Fun toy **** It›s a very basic step sequencer set up on a 16th note grid that plays back simple melodic tones.I actually use it to show my drumming students how step sequencing works.Great for beginners with no musical experience.Pro›s should look elsewhere. Agent_Bravo : Great ***** I just wish I could do a whole songs worth instead of 4 1 track layers, I love it tho very veritile.
References	AppStore http://itunes.apple.com/us/app/beatwave/id363718254?mt=8





CRITERIA	ZOOZBEAT LITE
Overview	With ZooZbeat you can create your own music track in one of the predefined genres. A song can contain up to four sequences which were always looped.
Interaction	Based on the music genre you can add notes of every instrument by shaking the device. The harder the shake, the higher the note. You can also tap the sequence bar to add a note at the current position. When you rotate the phone to landscape you get a more accurate view of the sequence.
Visuals	The visuals serve the purpose but aren't special. The sequence bar could be bigger with more understandable icons in the portrait view.
Sound	The sounds are good but don't offer any variation.
Accessibility	6/10 It seems first a little complex, but after a few minutes it is clear how to use ZooZbeat. Non musical experts can very fast create their own tracks. Whether every input was purposeful or happened at random. At least it sounds mostly good.
Engaging over time	4/10 Once you made a track in every genre it does not motivate a lot to use it again.
Participating	1/10 The application offers no possibility to play the instruments not in the sequence loop. This makes it practicaly impossible to participate to other music.
Composing	7/10 The first step allows you to make the basic pattern off the reel and refine it afterwards in the landscape view.
Pros	• Appropriate use of the shake gesture • Many different genres
Cons	• The shake detection is not very precise • You need to hold the phone tight so it won't drop
User feedback	Total 16749 Ratings *** Rock153: Good ***** An App I can finally make my own melody and instrumentals with, not just rearrange stuff. With it›s export via wifi, it›s a steal for $.99. It is very confusing at first, and is hard to get used to. VietNamWar: I love this app **** Really nice but pls update make more rhym and sound
References	AppStore http://itunes.apple.com/us/app/zoozbeat-lite/id295436861?mt=8





Category conclusion

The four beat machines we have tested are in average very accessible. This results by the very simple basic principle of the step-sequencer which is understandable in a few seconds when you see it.

When using the application Beatwave you don't even need to know how it works, you can just paint something on the grid and listen to the feedback. That painting is actually a effective method to bring music to everybody. Who can't paint? Another reason for the easy use is the constraining grid. The tones you make are always in a certain rhythm. It sounds more or less always great.

But the constraints in time and tones don't just have pros. The sequence of 16 to maximum 64 steps is always looped and maybe after a while you feel not motivated anymore or that you have tried almost every possible combination.

This looping of the same sequences in a specified tempo makes it impossible to participate to other music. EasyBeats is the only of our tested tools which allows you to play a single tone without the whole timeline. So you can at least add a custom beat to your music in the background. Unfortunately the sounds are pretty basic and they feel synthetic in a negative way.

Composing of a sequence is achieved by looping the same part over and over. With an appropriate view you can control and refine every part of your track. This makes it very easy to spend a lot of time with it. Too bad that the sequence is limited to maximum 64 steps.

All applications except for ZooZBeat are controlled with simple taps on a specific position on the grid. ZooZBeat takes advantage of the accelerator sensors to detect a shake in different force levels. This is a interesting approach but is in the end not very satisfying.

One thing we missed in these applications is a step sequencer which you can use with your own samples. There is for sure at least one available, but these professional samplers are mostly too complex for beginners.

References:

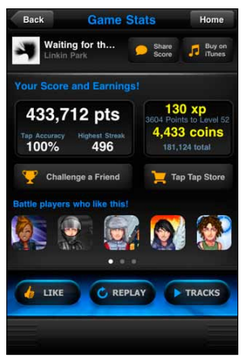
Step-Sequencer

http://de.wikipedia.org/wiki/Sequenzer_(Musik)

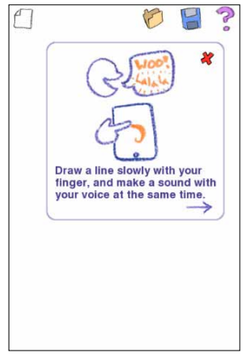
http://en.wikipedia.org/wiki/Music_sequencer

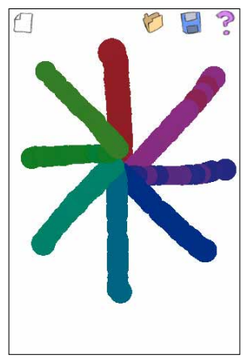
OTHER

CRITERIA	TAPTAP REVENGE 4
Overview	The TapTap Revenge series is definitely one of the longest running and most downloaded music gaming apps. The principle is like Guitar Hero, you play along predefined tracks of known artists by tapping in the right rhythm and on a abstracted tone range on the screen. There are always three rails and depending on the chosen difficulty more or less icons are approaching which you need to tap when they are at the end of the screen.
Interaction	Tap the approaching icons according to music on the three rails.
Visuals	Visual feedback when tapping on the defined zone. Some bands and artists have their on visual style. When you succeed over a defined quantity the visuals can get in some kind of bonus round mode.
Sound	The only sound is provided by the artists.
Accessibility	9/10 When you find your way through the overloaded menu in the play screen, then it is clear what to do.
Engaging over time	7/10 If you like the basic principle it is very engaging. There are many popular artists and songs which you can buy additionaly.
Participating	9/10 It works pretty well to participate to music with tapping in the right rhythm. But those who like to make their own sounds or want to add something new to a song should look elsewhere.
Composing	0/10 Not possible.
Pros	• Very engaging principle • Many popular artists and songs • Five difficulties • Sophisticated point system
Cons	• The approaching icons seams in the harder levels a bit accidental • Overloaded menus
User feedback	Total 181 Ratings *** schlimmmmmmmmmm: Einfach krasssss ***** Dieses App. Ist toollll hat bei einem neuen Level eine neue Musik und ist alles gratis.....
References	Official Site http://tapulous.com/ AppStore http://itunes.apple.com/ch/app/tap-tap-revenge-4/id405373266?mt=8



CRITERIA	SINGING FINGERS
Overview	Singing Fingers offers a creative way to combine tones with sketches and replay them.
Interaction	Make a tone, noise, sing etc. while drawing a line, dots etc at the same time. Strike or touch the parts of the lines to you'd like to listen.
Visuals	«See music» and «hear colors». The pitch of the sound is translated into a color, while the loudness of the sound determines the size.
Sound	Record anything. No predefined sounds. User creates every sounds via microphone.
Accessibility	9/10 Beginner Very easy and intuitive. Accessible for every age (/ culture / religion). No complex buttons, menus, or rules. Make your own instrument. Sound is visible.
Engaging over time	3/10 A fundamental purpose is missing, thus making SingingFingers just a fun toy to play around.
Participating	7/10 Recording sounds and experimenting is fun
Composing	2/10 Composing is rather challenging for SingingFinger users, since it first requires to record a set of different sounds, plus creating a layout that allows triggering these sounds easily.
Pros	• Very easy to play & accessible • Interesting visual feedback of finger position & loudness • Endless sound space • Ability to Save "paintings" • High Exploration factor
Cons	• Canvas can get convoluted/crowded • Not designed to be played in a Live performance/session • No Eraser-function -> Paint over or reset canvas • Microphone input always needed
User feedback	Total 240 Ratings **+ dawweber: Fun! Anyone can have it! ***** Why wouldn›t you want this app?! It›s fun. Xinixr: Creativelicious ***** What a creative, fun and clever app. Perhaps the most original way of funneling musical, visual and physical creativity into a single activity that I›ve seen. I›d give 6 stars if I could.
References	Official Site http://singingfingers.com/





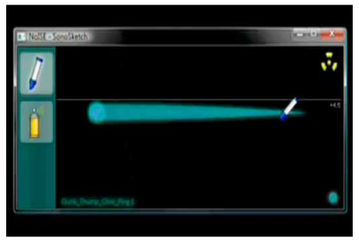
OTHER

CRITERIA	WII MUSIC
Overview	Wii Music gives beginners a chance to experiment music making without prior knowledge.
Interaction	The 60+ instruments boil down to four different control schemes. Following the pre-programmed songs leads to decent results. Coming across as casual, improvising however, is a disaster, due to the lack of control over the notes you play.
Visuals	(Your avatar plus the background players or your friends avatar when jamming together.) Note chart can be toggled on as a visual aid. The presentation is clean and understandable, and is similar to Wii Sports.
Sound	Wii Music is limited to melodic expression. Horrible MIDI approximations Mostly outdated pop or folk songs, with a few classic game tunes
Accessability	7/10 Entry difficulty: Beginner Mainly very young children and parents. Being marketed for "people who want to play music instantly, but don't want to practice a lot", Wii Music requires a lot of dedication to achieve satisfactory results due to limited, imprecise and unintuitive controls.
Engaging over time	4/10 While playing along to the note chart can engage players of a short period of time, improvising will likely not last longer than a few tries, even with the ability to share your own compositions.
Participating	1/10 Jamming together by ear leads to a chaotic, frustrating experience.
Composing	4/10 It is possible to record and share your session videos via Wii network.
Pros	• Playing along to a song is quite good • Following on-screen musical cues can be fun for kids • Offers a limited form of musical expression • Clean presentation
Cons	• Horrible sound quality • Imprecise, unintuitive controls • Freestyle mode is a failed attempt
User feedback	Bman54: Gametrailers gave this way too high of score. This game looks like CRAP! SSBFan12: This game was terrible. (This would be fun after a few beers on Saint Patrick›s day.) (This blows more than a hooker on speed.) IGN Reviewer: Our condolences to the two and a half million people who buy this game.
References	Gametrailers Review http://www.gametrailers.com/video/review-wii-music/42242 http://wii.ign.com/articles/921/921024p1.html

CRITERIA	MISA DIGITAL GUITAR KITARA
Overview	MDG is an electric guitar in shape, with a digital interface, namely an 8" touch screen. Basically a MIDI controller, with a guitar-like interface, and an on-board polyphonic synthesizer with effects.
Interaction	The Kitara's neck has 24 frets, like a tradition guitar. Instead of strings, each fret contains 6 buttons. On the touch screen below, strumming is done by touching one or multiple digital strings. Effects can also mapped to the touch screen's x- and y-axis and controlled by tapping or sliding on the screen.
Visuals	The touch screen features a bright palette of neon colors, visually illustrating you fingers' current position. The instrument it has a shiny black futuristic plastic look.
Sound	The predefined batch of sounds and effects are in high quality and editable. New sounds can be loaded onto the system via USB.
Accessibility	5/10 Entry difficulty: Advanced - Expert This instrument is designed for a more experienced audience that knows how to play a traditional guitar. Aimed for professional guitarists, studio musicians, DJs, electronic, ambient or traditional musicians. However, the Kitara in its form is as big a traditional guitar, hence nothing to stash away in your pocket.
Engaging over time	5/10 The open-source software allows users to pre-program and customize their own sounds. Assign different sounds to different strings. If it becomes popular enough, new apps and tools might appear, some that could even help beginners to play.
Participating	7/10 Experienced players are offered a interesting new tool to experiment with, especially for Electro bands like Daft Punk.
Composing	5/10 Composing with this multitouch guitar is nearly as challenging as as with a real guitar.
Pros	• Broad range of high quality and customizable sounds • No more finger pain • Open source software running on a Linux kernel • Usable with MIDI devices • Low latency touch screen • Aesthetically impressive
Cons	• Requires prior musical knowledge & guitar playing skills • Expensive (US $850) and very hard to get • Bulky, not for on-the-way
User feedback	Youtube comments situlo: its cool and the technology in it is amazing but people might forget the art of playing a real guitar. VORELURK97: Personally i wouldnt use one (as a serious musician) but i think its a really cool invention and a product of the future and some examples of its new technology.
References	http://www.youtube.com/watch?v=M2eiP12hQQY http://www.misadigital.com/index.php?target=gallery&lang=en http://www.facebook.com/misadigital http://www.synthtopia.com/content/2011/01/15/the-misa-kitara-digital-guitar-an-open-platform-for-synthesis/ http://www.youtube.com/watch?v=M3Zad5_eWVA&feature=related

OTHER

CRITERIA	SONOSKETCH
Overview	This desktop application has another scope than most of the tested tools, but it has a very interesting approach. SonoSketch helps you search through your sound effects collection by sketching the characteristics of the sound.
Interaction	You can paint a dot on a timeline and change the length and curve of its tail. On this basis it searches a matching sound file. By playing the timeline you hear every drawn sound file.
Visuals	The sound is represented by a blue dot with a tail in a small basic window.
Sound	Due this is a search mechanism it has no own sounds.
Accessability	9/10 The draw function is very intuitive thereby very accessible for everybody.
Engaging over time	6/10 It depends on the success with your own sound collection.
Participating	0/10 Participating is fairly impossible with this tool.
Composing	0/10 Composing something in this small timeline would be very hard.
Pros	• New way to explore sound effect collections • Very accessible
Cons	• Needs alway a good sound effect collection • No alternative search
User feedback	-
References	Project Movie http://www.youtube.com/watch?v=hEkxfICH220&feature=player_embedded# Explanation http://www.accessive-tools.com/sonosketch/ Website http://h3e.eu/



Category conclusion

Of course there are other ways to make sound and music more accessible to beginners, than with mobile instrument apps or beat machine apps. But most of the important findings can be gained from those two categories.

In this category are just a few approaches worth to mention.

The music game TapTap Revenge gives with great success a participating feeling with just tapping in the rhythm of a song, but does not allow any creativity. It rather focuses to bring rhythm closer to its audience.

SingingFingers is more or less the opposite. You can experiment with sounds through drawing, but it has no substantiated purpose that could convenience you to use it for a longer period of time.

Wii Music is an attempt to do a myriad of things for an inexperienced audience, boiled down to simplified controls schemes. This concept to introduce the target audience, low-level beginners, is great. The realisation however, is too dumbed down, boarding to wiggle waggle randomness at times. This furthermore proves to be inadequate, when one is to participate together with others. As we found out earlier, a qualitative audio output is an important factor to most users to further explore a music making application, regardless of what kind it is.

The multitouch guitar Kitara gives a different feeling of playing a guitar, but provides no big innovation to make a traditional guitar more accessible for our project's target audience. You need a similar skill level and practice as with a real guitar.

The comprehensive idea of SonoSketch could be interesting for sound manipulation, since more professional sound editing tools use abstract and difficult methods.